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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,247	11/21/2003	Raymond W. Smith	22-0303	2199
40158	7590	07/14/2005	EXAMINER	
LEONARD & PROEHL, PROF. L.L.C. 3500 SOUTH FIRST AVENUE CIRCLE SUITE 250 SIOUX FALLS, SD 57105			GONZALEZ, JULIO C	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/719,247

Applicant(s)

SMITH, RAYMOND W.

Examiner

Julio C. Gonzalez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: there a typo “f” in page 9, line 12; “10is” in page 10, line 2.

Appropriate correction is required.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show generator 10; housing 20; first portion 21; second portion 22; as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may

be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "20" has been used to designate both housing (page 6, line 12) and motor assembly (page 9, line 28). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the housing defining an interior space and having a first and second portion (e.g. claim 1); generator being positioned within second portion of housing; control assembly being between the generator and the motor assembly; stator assembly being coupled to the first portion of housing (claim 2); rotor assembly being positioned within housing (claim 2); pair of magnetic drive wheels (claim 17) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top

margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR

1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

5. Claim 10 is objected to because of the following informalities: claim 10 discloses "rare earth magnetic". The claim should read --- rare earth magnet ---. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification is not clear as to how the system will be controlled or how the current will be induced or what will drive the controller (e.g. PID's PI, algorithm, microprocessors, sensors) to perform the feedback signal in order to control the motor.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 discloses a control assembly between the generator and motor assembly, but from the figures, such control assembly is not between the generator and motor assembly. Is the claim referring that a signal may be between both, the generator and motor assembly?

It is not clear what is meant by the "controlling the speed of rotation induced into said shaft member by said electric motor assembly". Is the motor controlling the shaft 65? How is the speed of rotation induced? What induces the speed? The shaft or the motor?

In claim 3, it is not clear if the magnetic assembly and the flywheel are the same component.

Is the flywheel assembly the same as the rotor assembly of the electric motor 65?

Is the magnetic drive wheel 32 the flywheel?

In order to advance prosecution in the merits, the Prior Art will be applied as best understood by the examiner.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roesel, Jr. et al (US 4,663,536) in view of Greene (US 1,685,052).

Roesel, Jr. et al discloses a housing defining an empty space having a generator assembly 43 and motor assembly 42 (see figure 1).

However, Roesel, Jr. et al does not disclose having a controller in between the motor and the generator assembly.



On the other hand, Green discloses for the purpose of controlling efficiently varying loads, a control assembly 14 coupled between the electric motor 2 and generator 6. Moreover, it is disclosed that control assembly 14 controls the rpm of the motor 2 (column 2, lines 100-109). Also, the motor 2 has a stator (see figure 1), which inherently has magnetic members since in every motor there is flux and a magnetic field, thus providing magnetic members. It is further disclose a rotor assembly 4.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a motor-generator system as disclosed by Roesel, Jr. et al and to modify the invention by placing a control assembly between the motor and the generator for the purpose of controlling efficiently varying loads as disclosed by Greene.

12. Claims 3, 4, 6, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roesel Jr. et al and Greene as applied to claim 2 above, and further in view of Rose, Sr. (US 6,617,725).

The combined system discloses all of the elements above. However, the combined system does not disclose having a flywheel for the rotor.

On the other hand, Rose discloses for the purpose of reducing costs to electrical machines, a rotor-flywheel design (see figure 10) having magnets 380 along an array (see figure 11). Moreover, the flywheel has voids (see figure 10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined system as disclosed above and to use a flywheel as a rotor for the purpose of reducing costs to electrical machines as disclosed by Rose, Sr.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roesel Jr. et al and Greene and Rose, Sr. as applied to claim 3 above, and further in view of Muszynski (US 6,731,032).

The combined system discloses all of the elements above. However, the combined system does not disclose that the magnetic member is made of polymeric material.

On the other hand, Muszynski discloses for the purpose of minimizing cross talk between magnetic devices that a magnetic driver can be made of polymeric material (column 2, lines 57, 58).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined system as disclosed above and to

use polymeric material for the purpose of minimizing cross talk between magnetic devices as disclosed by Muszynski.

***Allowable Subject Matter***

14. Claims 19-27 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

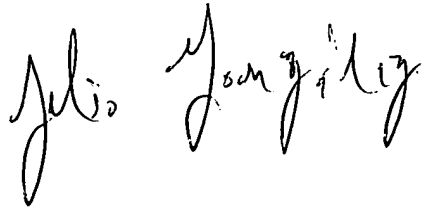
15. Claims 5, 10-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is 571-272-2024. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Julio Gonzalez", written in a cursive style.

Julio C. Gonzalez  
Examiner  
Art Unit 2834

Jcg

June 21, 2005